

Dimarzio Data Request dated 9/27/10

Subject: Immobilization Data Request

Question: You may want to have the Immobilization Team review the attached data call response. It appears that the one I sent to you on July 8th was not the latest response provided to SAIC.

Response: Bayer dated 9/28/10

Which immobilization facility are they referring to ? There was a PuVit project that changed name and mission a few times around the time of the last datacall. PuVit immobilized Pu in glass cans and put them into DWPF cans for DWPF to pour glass into. PuD replaced that with a smaller glass process then glass was replaced with H canyon and the AFS-2 mission was added. After that the name was changed to PuP. I am thinking the older glass can process is what was needed.

Response: Smith dated 9/29/10

In reviewing the info you asked me to do I believe it is most compatible to the information Bob Bayer provided for the PuP effort. The date on the document you provided is April 16, 2008, which is just after Alternative Study performed between January and March of that year (Y-AES-G-00001, Rev 1). This study has an alternative -4F which is described below

"Pu that meets chemical and isotopic specifications for MFFF (4.1 MT existing AFS oxide and additional 3.7 MT) is converted to an acceptable physical form in KAC. Pu not qualifying for other disposition (up to 5 MT) is analyzed, repackaged, or converted for transfer to HMD for processing. Pu solutions from HMD are transferred to HLW waste tanks or sludge batches for processing in DWPF into typical canisters, which are stored in GWSB and ultimately shipped to Federal HLW Repository."

As you can see there is no vitrification in K as described in the Pu-Vit Alternative. This alternative is actually the Alternative identified as PuP in the DOE letter referenced below.

The DOE renamed PUD to PuP at the it accepted its conclusions in June of 2008 (See Attachment 1).

If you want to compare/use the info from the 2008 data sheet, use it with the PuP input provided by Bayer in 2010.

Attachment 1



The Under Secretary of Energy
Washington, DC 20585

June 27, 2008

MEMORANDUM FOR JAMES A. RISPOLI
ASSISTANT SECRETARY FOR
ENVIRONMENTAL MANAGEMENT

FROM: C. H. ALBRIGHT, JR. 
UNDER SECRETARY OF ENERGY

SUBJECT: Approval of Revised Preferred Alternative Critical
Decision-1A for the Plutonium Preparation Project
at the Savannah River Site, Aiken, South Carolina

Based on our June 2, 2008, discussion of Environmental Management's (EM's) most recent plutonium disposition alternative analysis, I approve Critical Decision -1A, Selection of a Revised Preferred Alternative for the Plutonium Preparation Project at the Savannah River Site. This revised alternative will provide equipment and upgrades to the K-Area complex enabling the Department of Energy to prepare approximately 12.8 metric tons (MT) of plutonium materials for disposition partly through the Mixed Oxide (MOX) Fuel Fabrication Facility and partly through the existing H-Canyon facility.

The preliminary cost range for this project is \$340-\$540 million, and the completion schedule range is fiscal year 2013-2014.

I expect EM to continue to work with the National Nuclear Security Administration to ensure that the plutonium prepared for disposition through the MOX facility meets the MOX feed requirements and that all of the remaining plutonium is dispositioned through H-Canyon. Further, I expect you to conduct an additional technical review by October 30, 2008, to verify the technical, programmatic, and cost assumptions of the Plutonium Preparation Project.

cc:
Administrator, National Nuclear Security Administration

